

Copy

lab
Report
+ Drill

Wyatts
photos
+ Reports

Wyatts Report

Hunker Development Co's
properties

San Francisco
Oct 11, 1910

R E P O R T O F

HUNKER DEVELOPMENT COMPANY'S PROPERTIES

REPORT ON HUNKER DEVELOPMENT COMPANY'S
PROPERTIES, NEAR DAWSON, YUKON TERRITORY, CANADA.

---000---

The claims are located on Hunker Creek about 20 miles from Dawson and are reached over a well maintained wagon road, and cover that portion of the Creek from #21 below Discovery to #32 "A" above Discovery, both inclusive.

The latitude is 64 degrees North and 139 degrees West of Greenwich.

ACCESSIBILITY & TRANSPORTATION

Dawson, the capital of the Yukon Territory, is the principal city of the district, situated at the confluence of the Yukon and Klondike Rivers at a point accessible to navigation. Here are located the Government Offices, Telegraph, etc., etc. From Seattle to Dawson is from ten to twelve days trip via Ocean Steamer, Seattle to Skagway, White Pass Ry. to White Horse, (the latter point being the head of navigation on the Yukon River) River Steamers from White Horse to Dawson, this latter being from two to a three and one-half days trip.

The above applies to the Open Summer Season beginning about June 15th and closing around October 15th - During the remainder of the year Passengers, mail and express are carried from White Horse to Dawson by stage in from five to eight days.

Dawson is also reached by Ocean Steamers to St. Michael, then by River Steamers up the Yukon. This route requires a little more time, but is open for Summer travel a little sooner than the other. There is a great deal of freight goes in this way.

FREIGHT RATES

The rates from Seattle or Vancouver, B.C., on Mining Machinery are about \$54.00 per ton, on Lumber \$60.00 per thousand, and on other supplies it varies according to classification but averages around \$60.00 per ton.

The rate over the wagon haul from Dawson to the Property on small quantities would be \$20.00 per ton, but could be contracted on large lots around \$15.00 per ton.

LENGTH OF SEASON

On the Creeks this usually extends from May 15th to October 15th, or about five months. In the lower valleys it is about a month longer.

The Canadian Klondike Mining Company, who are operating a dredge at the mouth of Bear Creek in the Klondike Valley, ran during the season of 1909 from May 9th to November 20th.

I am told that the dredges operating on the creeks have always had to close down in the Fall on account of shortage of power. They are however this year (Yukon Gold Company's Dredge #7 on #34 below Hunker Creek) getting their power from another source and will only be obliged to close down on account of shortage of water or extreme cold weather. I understand they anticipate running up until November 1st this year.

TOPOGRAPHY

The ground covered is a creek bed, having a length of 5.36 miles and average width of about 400 feet. The dredging area is confined between limits, which are nearly level. There is a fall of 632 feet in the 5.36 miles or 2.22 feet to the 100.

With the amount of Muck and Sediment in the deposit, there will be no difficulty in maintaining the proper water level for the flotation of a dredge.

The surface along the side rims is covered with a small growth of willows and alder brush. There is no large timber to contend with.

A large percentage of the creek bottom has been worked over by the early miners, by drifting and other methods, so that along the center of the creek bed are numerous piles of tailings and strippings from these old workings.

There will be no heavy expense for clearing land, etc., etc.

FORMATION

These creek gravels floor the bottom of the creek bed to a depth of from 4 to 12 feet and are overlaid by a strata of sand and a sheet of black frozen muck ranging in thickness from 2 to as much as 30 feet. This muck in turn is covered by a thickness of moss from 4 to 12 inches. With the worked condition of the creek bed this muck now lies mostly along the side rims, which constitute the greater part of the frozen area.

I am of the opinion that this muck can be removed by a system of ground sluicing down to near the present creek level at a very small cost per yard of material moved, and when once removed will allow the underlying gravels to thaw by natural process over a course of two seasons so that they may be dredged.

NATURE OF GRAVEL

The gravels are local in origin and are composed of the schists, quartz and porphyry, which outcrop along the side hills.

The schist pebbles are usually flat round-edged discs, measuring from 1 to 4 inches in thickness and 2 to 12 inches in length. These constitute the larger part of the deposit, but are associated with a varying proportion of rounded and subangular

quartz pebbles and boulders, and less frequently with the porphyry pebbles derived from the later eruptive rocks of the region.

The maximum size of the gravel is 15 inches, and the average from 3 to 8 in diameter.

About 37% of the deposit from surface to bedrock will pass a 1/4 inch mesh screen. There is but very little clay in the deposit and that encountered washed easily on the rocker screen.

The shallowest ground is 10 feet and the deepest is 47 feet.

BEDROCK

Is a decomposed and broken schist, with now and then a strip of a harder schist and porphyry. On the whole it is medium soft and can readily be dug with a dredge. In some instances the values were found to extend down into the bedrock for a distance of 7 feet. This was the maximum. The average depth of bedrock that would have to be dredged would be about 3 feet.

AREA PROSPECTED

An area extending from #21 below to #9 "A" above Discovery both inclusive, was prospected with a Keystone Driller and developed 61.27 acres of dredging ground. This will be termed the Lower Ground. An area extending from #10 to #32 "A" above Discovery, both inclusive and termed the Upper Ground, was not drilled, but from a superficial examination and measuring up cuts and seeing the dust weighed from clean-ups made by individual miners and laymen on this portion of the ground, I see no reason why it should not hold up to the value of the Lower Ground - so this Upper Ground has been figured in at the same value as the prospecting results taken on the Lower Ground.

A survey of this Upper Ground shows there would be 38.11 acres within the dredging area.

The following is a summary of the prospect information which is given in detail in the Drill results herewith following:-

Total number of holes drilled	135
" " of acres that proved valuable for dredging	61.27
" " of drill holes in dredging area	88
An average of 1 drill hole to	.7 acre
Number drill holes outside of dredging area	47
Maximum depth to bedrock	46 feet
(All these figures refer to dredging area)	
Minimum depth to bedrock	6 "
Average " " "	18 "

Water Level

Maximum depth Water level below surface (Side Rim)	25 feet
Minimum " " " " " (Creek bed)	.5 "
Average " " " " " "	4 "
" " of overburden	12 "
Maximum " to be dredged below Water Level	26 "
Per cent of the deposit that carries the gold	18%
" " of the values above bedrock	25.6%
" " " " on "	42.2%
" " " " in "	32.2%

BLACK SAND

This is a fairly coarse magnetite, and contains no garnet sands. The maximum per cent found in any one drill hole was .4 of 1% and the average for the dredging area would be 1/4 of 1%. The quantity of black sand is about the average found in the gravel deposits of this district.

GOLD

The gold is bright, clean and has enough weight so that it can be easily saved.

VALUE

The value of 838.4 fine or \$17.33 per ounce was secured from a list of assays given me by Mr. J.F. Burke, who secured them

from the Bank of British North America, covering claims ranging from #20 below to and including #40 above Discovery. The largest color or piece found in any drill hole weighed 5.6 cents.

FAVORABLE CHARACTERISTICS OF THE FORMATION

The pay formation is nearly free from clay - no cemented material in the deposit. Gold is clean and amalgamates readily, is heavy and can be saved easily with a dredge.

The ground drills easy which is a good indication that it will dredge easily (this of course refers to thawed ground). About 58% of the dredging area is already thawed. The bedrock can be dug and over the larger part very easily,

INFLUENCE THE ABOVE CONDITIONS WILL HAVE ON THE DREDGING OF HUNKER CREEK

The depth of the ground is favorable for securing a good yardage and the variation in surface levels is not sufficient to effect the dredging operations or make them costly. Forty miners inches of water is available during the dryest season at #32 above Discovery and 50 M. inches at 20# below, which is ample to keep the dredge pond supplied with fresh water.

DREDGE UNIT

A modern 7 foot close connected bucket dredge with detailed changes to suit the prevailing conditions on Hunker Creek should dig on an average of 84,000 cubic yards per month or 420,000 yards over the 5 months season.

P O W E R

Electric Power is available from the following sources: The Northern Light, Power and Coal Company, Limited, have a plant located 60 miles from Dawson in the Forty Mile District. Power is generated here at the coal mines by a large steam plant and delivered over the Company's line to Dawson. The nearest distribut-

ing point to Hunker Creek is at Dawson. This Company's quotations on power are: "On a minimum of 600,000 K.W.H. annually we will supply you with" Our system is 60 cycle, 3 phase alternating current, voltage 23,000. The concern is under the management of E.H. Thurston, Dawson, Y.T.

THE NORTH FORK POWER COMPANY

This company's plant is located on the North Fork of the Klondike River about 50 miles from Dawson, and is now in course of construction and expect to start delivering power by September, 1911. The main line of this company will run along the divide between the Klondike River and Hunker Creek, the nearest point being about 5 miles distant from #6 below Discovery. This company has quoted power on a basis of 3 cents per kilowatt hour. The system is 60 cycles, 3 phase alternating current, voltage on high line 33,000. This power is developed by water power and they claim will be able to operate their plant from May 1st to late in November during the season.

The location of this company's line to the property makes it the most desirable of the two sources. The concern is under the management of A.N.C. Treadgold, Dawson, Y.T.

The power costs have been figured on the above basis of 3 cents per K.W.H.

electric energy at 4 cents
per K.W.H.

SUMMARY OF RESULTS -- DREDGE UNIT

1 - 7 foot close connected bucket dredge, operated by electric power designed to dig 30 feet below the water line and stack 35 foot cut

Capacity per month - - - - - 84,000 cubic yards

Total operating costs, including all expenses at Dawson Property - - - - - 21.48 cts.per cu.yd.

LIFE OF PROPERTY

99.38 acres has a total yardage of - - - - - 3,220,100

Basis of 5 months working season - 38.3 months or 8 years run.

PRODUCTION AND NET PROFIT

Gross Value in 99.38 acres @ 32.98¢ per cu.yd. -	\$1,061,988.97
Less working costs @ 21.48¢ " " -	<u>691,677.82</u>
Total Net Profit " 11.50¢ " "	\$ 370,311.15

NET PROFIT PER YEAR (5 months) -

420,000 cu.yards @ 11.50¢ per cu.yd. - - - - - \$ 48,300.00

INVESTMENT

Cost of Prospecting

(Estimated) Wyatt Examination \$ 13,000.00

EQUIPMENT

1 - 7 foot close connected bucket dredge, installed complete	\$ 165,627.50
Dredge Pit on #21 Below	1,500.00
Power Line 6½ miles	13,000.00
Thawing Plant	4,000.00
Repairing Camp buildings #6 below	<u>872.50</u>
Total Equipment	\$ 185,000.00

TOTAL INVESTMENT

Prospecting	\$13,000.00
Equipment	185,000.00
	<u>\$198,000.00</u>

RETURNS ON \$198,000.00 INVESTMENT

Net profit per year for 7.66 years (8 seasons) ----\$48,300.00

This will return investment of \$198,000.00 in 4.08 years and pay 24.39% per year for the remaining 3.58 years, or will return the investment in 7.66 years and pay 11.28% per year during this time.

PROPERTY TITLES AND WATER RIGHTS

TITLES

Attached hereto please find Record Book, showing on each page a record of the claims controlled by your Company. This record was compiled and furnished me by your Attorney, Mr. Thos. A. McGowan, of Dawson.

WATER RIGHTS

Under the Yukon Placer Mining Act all the water of a stream cannot be diverted as long as there are any mining operations going on in the Creek bed below the point of diversion - the law specifying that the claim owner is entitled to a full sluice head (50 miners inches) of the water flowing over or past his claim.

On Hunker Creek there is available at #32 Above Discovery about 40 miners inches of water during the dryest portion of the season and about 50 miners inches at #21 Below Discovery. The maximum water noted was about 150 miners inches on September 10th, and the above minimum about September 1st. The spring freshet, I am told, amounts to around 250 inches during the break-up.

TAXES

I am informed that there are no further taxes other than the Export or Royalty tax on bullion amounting to 2½% and the renewal tax of \$10.00 per year on each claim or fractional claim owned.

You are required, however, to expend \$200.00 per year on each claim or fractional claim as Representation work. This can be done on any one or more claims to cover the whole group.

After the dredging operations are once started, there will be no further costs from this source as you will be allowed at the rate of fifty cents (50¢) per cubic yard of material moved to apply on this account.

Attached hereto is the official schedule of Representation work covering the District.

TIME REQUIRED TO EQUIP PROPERTY

By placing the order for dredge machinery and lumber around January 1st, and having all possible timber framing done, and the whole at Skagway or White Horse by June 15th, or at the opening of navigation on the Yukon, I see no reason why the dredge should not be in operation by September 15th. This would give about 30 days run during the first season. These results have already been accomplished by two different companies now operating in the district.

HILLSIDE CLAIMS

These were not prospected systematically, but were gone over in a preliminary way and the exposed banks of unworked gravels sampled.

There has been considerable of an area worked off on Nos.

7, 8, 9, 10 and 11 on the Right Limit below Discovery and locally known as "Whiskey Hill", and also on claims Nos. 4, 5 and 5 "A" on the Right Limit below and known as "Ensil Hill".

These high level or bench gravels are no doubt ancient creek deposits and owe their elevated position, which is some 280 feet above the present creek bed, to an uplift which has caused changes in the topography of the country and drainage system. They are locally known as the "White Channel gravels", presumably taking this name on account of the deposit being made up almost entirely of white quartz pebbles and rounded and sub-angular boulders of vein quartz.

There seems to be only portions of this Old Channel remaining along the hillsides, as it is not traceable for any great continuous distance.

From the area and evidently costly way in which they were worked in the earlier days, there must have been considerable gold taken from off these two hills. The main pay was evidently along the lower rim, as this has been worked very closely compared to the upper and the results of samples taken from the remaining gravels along the upper rim does not show sufficient value to cover working costs of the present day.

The present water supply available for working the remaining gravels on these hillsides is very limited and I do not consider there is sufficient value remaining to warrant any further expenditure in bringing in any other water supply that might be available later on.

There is a ditch now covering this ground, known as the "Brenner Ditch", which is sufficient to work out the gravels remaining and can no doubt be acquired at a very nominal sum,

should further prospecting reveal any values that would warrant its purchase. There is a possibility that some further pay gravel might be found to the South of "Ensil Hill" along hillside claims #3 "A", 3 and opposite #2 "A" and 2 Creek claims on Right limit below Discovery.

The following is a summary of probable gravels remaining on "Whiskey and Ensil Hillsides" that could be worked under the Brenner ditch system:-

"Whiskey Hill" total	- - - - -	-143.114 cu.yards
" " owned by Hunker Development Co	- - - - -	62.081 " "
Average value of samples taken	- - - - -	14.97¢ per cu. yard
"ensil Hill" Total	- - - - -	27.330 cu.yards

DATA

Herewith please find attached, Drill results, detailed data covering costs of operation, dredge equipment, etc. Maps of property showing area and cross-sections through drill holes and location of open cut sampling and worked ground on Hillside claims; photographs, and etc.

CONCLUSION

A modern 7 foot dredge should handle successfully 84,000 cubic yards per month or 420,000 cubic yards over the 5 months season. The total cost of all operations should not exceed 21.48 cents per cubic yard.

With the values found in the ground there is a fair margin of profit, and the return of the equipment investment.

Respectfully submitted,

(signed) James S. Wyatt

San Francisco, Calif.,

October 11th, 1910.

1

DRILL RESULTS #1

NO HOLE	MAP NUMBER	DEPTH IN FEET	VALUE IN CENTS CUBIC YARD	VALUE DISCOUNTED TO
101	A - 2	22	6.83	
102	" 3	21	3.45	
103	" 4	20	11.44	
105		20	5.57	
231	A1- 4	20	25.07	
232	" 3	20	19.22	
233	" 2	21	36.61	
234	" 1	19	0.87	
106	B - 5	18	34.05	
107	" 4	21	17.24	
108	" 3	21	0.79	
109	" 2	29	204.05	102.03
226	B1- 5	16	3.13	
227	" 4	23	0.00	
228	" 3	22	18.99	
221	C - 5	21	36.34	
222	" 4	21	107.70	
223	" 3	19	20.52	
218	C1- 3	27	99.45	
219	" 2	20	1.39	
112	D - 2	22	9.11	
113	" 3	30	323.91	161.95

DRILL RESULTS #2

NO HOLE	MAP NUMBER	DEPTH IN FEET	VALUE IN CENTS CUBIC YARD	VALUE DISCOUNTED TO
215	E - 1	31	489.79	244.89
216	" 2	21	8.22	
116	F 2	29	15.75	
117	" 1	14	19.89	
213	G 2	23	4.60	
214	" 1	22	17.98	
118	H 1	20	5.08	
119	H 2	21	2.02	
208	H1- 1	32	13.06	
209	" 2	22	2.02	
198	I 3	31	3.42	
199	" 4	36	19.34	
200	" 5	34	52.05	
205	Il - 3	39	14.85	
206	" 2	44	27.22	
207	" 1	46	8.72	
121	J 2	27	304.34	152.17
122	" 3	16	8.00	
193	K 3	18	33.11	
194	" 2	8	105.86	
123	L 1	21	306.93	153.47 ⁶
124	" 2	22	40.27	
190	M 3	22	41.28	
191	M 2	24	45.50	

DRILL RESULTS #3

NO HOLE	MAP NUMBER	DEPTH IN FEET	VALUE IN CENTS CUBIC YARD	VALUE DISCOUNTED TO
126	N - 1	37	45.01	
127	" 2	28	6.36	
128	" 3	16	0.00	
129	" 4	18	30.65	
130	" 5	15	6.68	
131	" 6	15	10.77	
184	O 3	20	12.81	
185	" 4	20	5.57	
186	" 5	22	20.00	
132	P 2	17	21.96	
133	P 1	17	47.85	
134	" 5	16	14.62	
135	" 4	21	13.79	
136	" 3	17	10.17	
177	Q 2	15	29.71	
178	" 3	10	3.34	
179	" 4	10	8.35	
180	" 5	15	52.37	
181	" 6	7	57.52	
182	" 7	8	26.93	
137	R 7	14	2.38	
138	" 6	14	0.00	
139	" 8	15	7.42	
140	" 5	17	12.45	

DRILL RESULTS #4

NO HOLE	MAP NUMBER	DEPTH IN FEET	VALUE IN CENTS CUBIC YARD	VALUE DISCOUNTED TO
168	S - 5	12	35.28	
169	" 6	22	0.00	
170	" 7	20	53.49	
172	" 4	22	14.94	
145	T 1	28	50.34	
146	" 4	13	1.71	
147	" 3	23	18.65	
148	" 2	16	8.70	
165	U 3	18	9.28	
166	" 2	26	9.64	
167	" 1	26	27.21	
150	V 4	26	48.64	
151	" 3	20	11.97	
152	" 2	20	57.94	
160	W 3	24	1.39	
161	" 2	20	4.17	
156	X 3	16	4.52	
158	" 4	30	39.18	

88 Total & Ave Depth 21.38

45.06¢

32.98¢ Value per
Cu.Yd.

S U M M A R Y #5

<u>NAME</u>	<u>Acres</u>	<u>Average Depth</u>	<u>Average Value.</u>	<u>Cubic Yards per acre</u>	<u>Total Yards</u>	<u>Prospect Value</u>
Lower Ground	61.27	2138	32.98¢	34,493	2,113,386	\$696,994.70
Upper Ground	38.11	18.00	32.98¢	29,040	1,106,714	364,994.27
TOTAL	99.38				3,220,100	1,061,988.97

NOTE : -

The value of the ground is taken at 32.98¢ per cubic yard. The high holes, viz: Nos. 109, 113, 121, 123, 215, have been discounted 50%. This has been done on account of the present state of the ground, same having been partially worked in the earlier days of the camp. These holes were all in "Virgin ground" and no doubt in the main pay channel.

The "Upper Ground" was not drilled, but from superficial examination I see no reason why it should not hold up to the value of the "Lower Ground", so this has been taken at the same values.

I am also of the opinion that the Dredge Recovery value will hold up to the prospect value taken as 32.98¢ per cubic yard.

AREA OF GROUND -

Lower Ground Claims Nos. 21 below to #9 "A" above Discovery, both inclusive,

Total Acres	- - - - -	105.11
" " - inside of Dredging Area	- - - - -	61.27
" " inside of Dredging Area Thawed Ground	- - - - -	37.85
Upper Ground Claims Nos. 10 to #32 "A" above, both inclusive, -		
Total Acres	- - - - -	46.30
" " inside of Dredging Area	- - - - -	38.11
" " " " " Thawed Ground	- - - - -	20.46

Total cu. yards Upper Ground	- - - - -	1,106,714
" " " " Thawed	- - -	594,158 - 53.6%
" " " " Frozen	- - -	512,556 - 46.4%

Total Cu. Yards Lower Ground		2,113,386
" " " " Thawed		1,305,562 - 61.8%
" " " " Frozen		807,824 - 38.2%

SUMMARY (Continued) #6

Total Yardage Upper & Lower Ground	- - - - -	3,220,000	
" " " " " Thawed	- -	1,899,700	- 58.99%
" " " " " Frozen	- -	1,320,400	- 41.01%

DRILL HOLES IN DREDGING AREA LOWER GROUND -

Total number holes	- - - - -	88	
" " " showing worked ground	- - - - -	62	- 70.4%
" " " " virgin "	- - - - -	26	- 29.6%

BROTHER JONATHAN
BOND

DRILL HOLES OUTSIDE OF DREDGING AREA #1

NO. HOLE	MAP NUMBER	DEPTH IN FEET	VALUE IN CENTS CUBIC YARD	
100	A - 1	16	25.42	
104	" - 5	16	0.00	
110	B - 1	9	0.00	
229	B1- 2	22	2.27	
230	" - 1	27	9.28	
224	C - 2	16	0.00	
225	" - 1	19	5.27	
217	C1- 4	14	0.00	
220	" - 1	22	17.98	
111	D - 1	20	1.11	
114	" - 4	25	0.44	
115	F - 3	21	4.77	
211	G - 3	23	2.42	
212	" - 4	22	0.00	
210	H1- 3	21	0.53	
196	I - 1	13	1.71	
197	" - 2	41	2.98	
201	" - 6	26	1.28	
202	" - 7	21	0.79	
203	II- 5	13	3.42	
204	" - 4	28	0.00	

DRILL HOLES OUTSIDE OF DREDGING AREA #2

NO. HOLE	MAP NUMBER	DEPTH IN FEET	VALUE IN CENTS CUBIC YARD
120	J - 1	25	4.01
195	K 1	10	16.71
125	L 3	16	2.41
189	M 4	12	12.53
192	" 1	28	6.56
187	O 2	14	0.00
188	" 1	15	5.20
176	Q 1	13	5.14
183	"	22	3.29
141	R 4	18	Trace
142	" 3	22	5.06
143	" 2	35	4.26
144	" 1	46	0.00
171	S 8	16	4.52
173	" 3	17	23.92
174	" 2	16	15.67
175	" 1	29	1.92
163	U 5	15	2.60
164	" 4	18	4.33

DRILL HOLES OUTSIDE OF DREDGING AREA #3

NO. HOLE	MAP NUMBER	DEPTH IN FEET	VALUE IN CENTS CUBIC YARD
149	V - 5	17	8.52
153	" 1	10	0.00
159	W 4	23	15.50
162	" 1	23	0.00
154	X 1	12	0.00
155	" 2	12	0.00
<u>157</u>	" 5	28	0.99

47 - Total Holes Outside of Dredging Area

Total number of holes drilled - - - - - 135

"	"	"	"	inside Dredging Area	88	-	65.2%
"	"	"	"	outside	"	"	47 - 34.8%

DREDGE UNIT -

1 - 7 foot close connected Bucket Dredge, Basis 20 hour day, bucket speed 18 per minute and 50 per cent efficiency, should handle 84,000 cu. yards per month.

Working season May 15th to October 15th - 5 months.

Yardage handled per year 84,000 x 5 - 420,000 cubic yards.

Total yardage - - - - - 3,220,100 " "

Life of Property - 38.3 months or 8 seasons run.

N O T E ; -

The Canadian Klondike Mining Company, who are operating a boat of the above type at the Mouth of Bear Creek on the Klondike River, claim for the Season of 1909 -

Started May 9th, closed November 20th - 196 days run:

Operating in 30 to 35 feet thawed ground, dug 691,616 cu. yards or 3,528 yards per day;

I could not get actual running time, but assuming 20 hour per day on a bucket speed of 18 per minute and 3,528 yards - 63% of Theoretical Capacity.

I do not think that this rate can be done on Hunker Creek.

DREDGE UNIT (7 FOOT) OPERATING COSTS - - - - -

These figures are based on a capacity of 84,000 cu. yards per month over a 5 months working season from May 15th to October 15th incl.

The skilled labor (Winchmen) to be taken in and out each year on contract basis of \$120.00 per month & board, $\frac{1}{2}$ time travelling and expenses both ways, the total extra expense over the season amounting to \$370.00 or \$74.00 per month, plus \$120.00 salary equals \$194.00 or \$6.50 per day.

The Dredge Master @ \$3,000 per year to act as Superintendent and look after the property during the closed season - \$600.00 per month- \$20.00 per day.

Board of men figured at \$1.50 per day per man.

NO. MEN	<u>DREDGE</u>		<u>LABOR</u>		TOTAL COST PER MONTH	COST IN CENTS PER CU. YARD
	HOURS SHIFT	WAGES & PER DAY	BOARD PER MAN PER MONTH			
3 Winchmen	8	\$8.00	\$240.00		\$720.00	
3 Oilers	8	6.00	180.00		540.00	
3 Deckhands (2 day & 1 Night)	12	6.00	180.00		540.00	
1 Blacksmith	10	7.50	225.00		225.00	
1 " Helper	10	6.00	180.00		180.00	
2 Shoremen	10	5.50	165.00		330.00	
1 Supt.&Dredge Master					<u>600.00</u>	
Total - - - - -					\$3,135.00	3.732 ¢

POWER FOR DREDGE

Basis 225 Horse Power, 20 hour day, 1.3 H.P. per Kilowatt hour, rate of 3¢ per K.W.H. -

	<u>PER DAY</u>	<u>PER MONTH</u>	
3,460 K.W. Hours @ \$/.03	\$103.80	\$3,114.00	3.707 ¢
Forward		\$6,249.00	7.439 ¢

OPERATING COSTS #2

	TOTAL COST PER MONTH	COSTS IN CENTS PER CU. YARD..
Brought Forward	\$ 6,249.00	7.439¢
<u>THAWING</u> (50% of the ground thawed)		
42,000 yds. @ 20 ¢	8,400.00	10,000.
Dredge Repair Parts & Supplies	2,000.00	2.380
Berthing Dredge for Winter and cutting ice from pond and getting ready for season's run @ \$1,000.00	200.00	0.238
Heat for dredge during cold weather, 45 days, 1 cord of wood per 24 hours @ 16.00 - \$720.00	144.00	0.171
<u>Taxes & Office Expense -</u>		
Bookkeeper @ \$100.00 per month		
Taxes - Renewals of 95 claims per year @ \$10 each - \$950.00 (86 creek & 9 Hillside)	225.00	0.267
<u>Royalty Tax Bullion, 2½% -</u>		
Monthly Output \$27,703	692.57	0.824
<u>Expressage & Insurance on Bullion -</u>		
Monthly Output \$27,703 @ \$5.00 per \$1,000	138.50	0.164
<u>NOTE:</u>		
It is assumed that there will be no further expense on account of management, outside of the Dredge Superintendent.		
Total Operating Costs per month	\$18,049.07	21.483¢

DREDGE UNIT (7 FOOT) POWER COSTS

Main drive and screen	125 H. P.
10" Pump, Screen & Tables	50 H. P.
Stacker	30 H. P.
Ladder Hoist 40 H.P. @ 20% consumption	8 H. P.
Winches 20 H. P. @ 50% consumption	<u>10</u> H. P.
	223 H. P.
Lights on basis of 8 hours per day for season @	<u>2</u> H. P.
TOTAL - - - 225	

Basis 20 hour day; 1.3 H.P. per K.W.H.; & rate 3¢ per K.W.H.

$\frac{225}{1.33}$ equals 173 K.W. per hour.

$173 \times .03\%$ equals \$5.19 x 20 equals \$103.80 per day.

\$103.80 x 30 equals - - - - - \$3,114.00 per month

Basis 84,000 cu. yards. per month handled equals $\frac{3114.00}{84000}$ or \$0.0370 per cu. yard.

BROTHER JONATHAN

BOND

THAWING COSTS #1 -----

The following is an approximation based on information secured from the Foreman of the Yukon Gold Company's thawing plant on #35 Below on Hunker Creek.

Plant and Costs -

2 Boilers (1-95 H.P., 1-80 H.P.) - - - - - 175 H.P.
 No points used 162, size of point 3/4", with 3/8" steam connections.
 Boiler Pressure 60 to 80 lbs (all they can generate).
 Thawing 24 to 26 ft. deep & points set 8 feet apart. Hours left in ground 36 to 48. Wood costs on ground, 4 foot lengths \$15.00 per cord. Are thawing 4,000 cu. yds. per day.

	<u>C O S T S</u>	<u>TOTAL PER DAY</u>	<u>CENTS COSTS PER CUBIC YARD</u>
<u>Wood</u> , 24 Cords @ \$15.00		360.00	9.000¢
<u>Labor</u> , Men board themselves or pay Company at rate of \$1.50 per day, 10 hour shifts			
2 Foremen (1Day, 1 Night) @ \$8.00		16.00	
4 Firemen (12 Hours) @ \$7.00		28.00	
1 Blacksmith (10 Hours) @ \$7.50		7.50	
1 " Helper " @ \$6.50		6.50	
22 men on points @ \$6.50		<u>143.00</u>	
		201.00	5.025 ¢
<u>Supplies, renewals & Repairs on Plant</u>		<u>30.00</u>	<u>0.075</u>
Total Costs on 4,000 yard basis		\$ 591.00	14.010

Continued

THAWING COSTS #2

Of the ground prospected our drill records show 58.99% of same to be thawed. This is due on account of its semi worked condition and practically all of the frozen ground lies along the sides or rims. On this account it would be necessary to move the thawing plant oftener than what the Yukon Gold Co. have to and would add to the above cost.

I should say that this additional cost and the increasing cost of fuel, that is going ahead yearly as they have to go further back for their wood supply, would bring the cost of thawing around 20 cents per cubic yard. This cost will be taken and 50% of the ground figured as thawed, which will bring the cost per yard of thawing of the entire yardage down to 10¢ per cubic yard. I am of the opinion that this cost of thawing can be reduced by ground sluicing off the top muck and exposing the gravel, which I think will thaw sufficiently during the period of two seasons to allow of its being worked.

The greater portion of the frozen ground from #7 Below Discovery to and including #32 "A" Above lies along the side rims and above the present creek level, and could be handled at a very small cost in this way. This work would have to be started and carried forward so that the ground that was sluiced off this year would not be dredged until the following two years after. When the light moss covering is once removed from this top muck and the water put on, it melts away very rapidly. This is quite noticeable along existing ditch lines, and is one of the greatest sources of trouble in keeping up of ditch systems in this country. By the removing of this muck along these lines you are getting rid of a very considerable yardage that contains absolutely no value and when it has to be dug in place, after artificial thawing, costs the same per yard to dig as the gravel carrying the values-so you are not only saving the cost of digging but also a very considerable amount on the cost of artificial thawing.

DREDGE UNIT (7 FOOT) COSTS

Machinery, (Marion Steam Shovel Type) F. O. B.

Factory, Marion, Ohio, (approximate) - - - - - \$80,000.00

Shipping Weight	"	625,000 lbs	}	26,250.00
Freight Rate to Seattle or Vancouver @ \$30. per ton				
" " Seattle or Vancouver to Dawson @ \$54 per ton				

Lumber

220,000 ft. @ \$32.00 per M, Seattle or Vancouver	7,040.00
Freight to Dawson @ \$60.00 per M	13,200.00

Freight, Dawson to Property,

Machinery - - - - -	312.5 tons)	
Lumber - - - - -	330.0 ")	@ \$15.00 - - - 9,637.50

Labor, for building (Principal framing done outside)

50 men 55 days @ 2,750 days @ \$10.00	27,500.00
Erecting tools & equipment & incidentals	2,000.00

Dredge Pit

Cleaning out "Burke Pit" on #21 Below, keeping water out during construction, preparing, erecting yard, etc.	1,500.00
--	----------

<u>Power Line</u> , 1½ miles from #6 to #21 Below @ \$2,000.00	3,000.00
--	----------

Repairing Camp Houses on #6 Below	<u>872.50</u>
-----------------------------------	---------------

Total Installed Complete \$171,000.00

Thawing Plant

Boilers, etc. (Yukon Saw Mill Co.)	\$2,500.00	
Points, Piping, Hose & Tools	<u>1,500.00</u>	4,000.00

Power Line 5 Miles, from #6 Below Discovery to Main Line of North Fork Power Co., @ \$2,000 per mile,	<u>10,000.00</u>
---	------------------

Total Equipment Investment -- \$185,000.00

POWER LINE COSTS

Have 5 miles to build from #6 Below Discovery to main line of North Fork Power Company.

Cost per mile -

Poles, 32 @ \$5.00	\$160.00
" Labor for setting & stringing wire, 32 @ \$8.00	256.00
Cross Arms, 32 @ \$.75	24.00
Insulators & Pins (3 to pole), 32 @ \$3.75	120.00
Wire, 5,070 # No. "0" bare @ .22½ per lb.	1140.75
Clearing Right of Way (Small Timber) 2 men 10 days @ \$15.00 per day	150.00
Additional for contingencies	49.25
Total	\$2,000.00

5 miles @ \$2,000.00 - \$10,000.00

BROTHER JONATHAN
BOND

"THAWED GROUND"

YUKON GOLD COMPANY

DREDGE OPERATION No. 1

BONANZA CREEK

AUGUST 1910

A C C O U N T	Costs This Month	Per Cu. Yd.	Costs To Date	Per Cu. Yard.
Labor	1794.08	.0151		
Board	579.07	.0048		
Power	1941.17	.0163		
Stripping	415.71	.0035		
Thawing				
Repairs Labor	346.61	.0029		
" Board	21.84	.0002		
" Supplies	298.54	.0025		
Tools & Supplies	146.57	.0012		
Taxes & Insurance	426.32	.0036		
General Expense	654.03	.0056		
Depreciation	2000.00	.0168		
Govt. Gold Tax	1038.26	.0087		
Selling Charges	689.28	.0058		
Preliminary Operations	4345.58	.0365		
Assaying	58.58	.0005		
T O T A L :	14755.64	.1240		

Hours Run	Per Cent of Possible	Cu.yds. Worked	Cu Yds Per Hour	Cu. Yds. Per Day.
This Month 711.35 Hrs	89.8	118999	167.3	3606
To Date 2103.25 "	88.1	334108	158.8	3359

"ALL FROZEN GROUND"

YUKON GOLD COMPANY

DREDGE OPERATION NO. 2		BONANZA CREEK		AUGUST 1910	
A C C O U N T		Costs	Per	Costs	Per
		This Month	Cu. Yd.	To Date	Cu. Yd.
Labor		1830.52	.0233		
Board		582.02	.0074		
Power		1711.95	.0218		
Stripping		415.71	.0053		
Thawing		14771.69	.1883		
Repairs Labor		762.13	.0097		
" Board		53.36	.0007		
" Supplies		1016.26	.0129		
Tools & Supplies		131.81	.0017		
Taxes & Insurance		426.32	.0054		
General Expense		655.63	.0084		
Depreciation		2000.00	.0255		
Govt. Gold Tax		416.58	.0053		
Selling Charges		273.87	.0035		
Preliminary Operations		4050.44	.0516		
Assaying		23.51	.0003		
T O T A L:		29121.80	.3711		

		Per Cent			Cu. Yds.
Hours Run	of	Possible	Cu.Yds. Worked	Cu. Yds. Per Hr.	Per Day
This Month	558.70 Hrs	80.3	78464	140.4	2706
To Date	1969.45 "	84.2	247287	125.6	2536

Thawing Cost per sq. yd. season 1909 = \$1.62

SUMMARY OF RESULTS FROM THE WORKING OF
ELEVATOR OR BURKE PIT ON NO. 21 BELOW DISCOVERY

GOLD RECOVERED

For the season of 1908	- - - - -	\$4,322.44
" " " 1909	- - - - -	<u>9,921.70</u>
TOTAL	- - - - -	14,244.14

Square feet of bedrock cleaned - - - - - 34,500
(This was taken from a survey of the pit and the area
figured on measurements at the water level)

Average depth of ground - - - - - 20 feet

Cubic yards of material moved - - - - - 25,555

Value per cubic yard of material moved - - - - - \$0.5573

Note:

This ground had been previously worked over by the early
day miners, by drifting.

Dawson, Y.T., Sept. 23rd, 1910.

AMOUNT TURNED IN FOR ACCOUNT REPRESENTATION WORK

Drill Work, 3155 feet @ \$5.00	\$15,775.00
Open Cut work	175.50
Team Work	<u>1,360.00</u>
<u>TOTAL WYATT EXAMINATION</u>	<u>\$17,310.50</u>

L A Y M E N

Finialson affidavit	\$10,163.00
Frazer "	1,157.00
Wyatt "	(for a/c Pickering & McCoy lay) <u>2,193.00</u>

Total -- -- -- -- \$30,823.50

SCHEDULE OF REPRESENTATION WORK UNDER
SECTION 41 OF THE YUKON PLACER MINING ACT.

SHAFT SINKING

For first ten feet in depth,	\$2.00	per running foot of dirt removed.
" second do	4.00	do
" third do	6.00	do
" fourth do	8.00	do
Below forty feet in depth	10.00	do

TUNNELLING

- (a) In unfrozen ground, for first (25) twentyfive feet, \$2.00 per running foot. Beyond (25) twentyfive feet, \$3.00 per running foot.
- (b) In frozen ground, for first (25) twentyfive feet, \$3.00 per running foot. Beyond (25) twentyfive, \$4.00 per running foot.

DRIFTING FROM SHAFT

- (a) In unfrozen ground, \$2.00 per running foot.
- (b) In frozen ground, \$3.00 per running foot.

There shall be allowed, in addition, one dollar per running foot for every ten feet in depth of the shaft from which the drift is run. In measuring of the drift each running foot shall have a width of four feet, and where the drift is of a greater width, allowance shall be made for such additional work on a basis of each running foot having a width of four feet.

TIMBERING

In shaft, \$3.00 per running foot.

In drift or tunnel, \$2.00 per running foot.

OPEN CUTTING

- (a) Ground sluicing, 50¢ per cubic yard of dirt removed.
- (b) Stripping (by scraper) 75¢ per cubic yard of dirt removed.
- (c) Hand-shovelling, \$1.75 per cubic yard of dirt removed.

DRILLING

\$5.00 per foot in depth

Drill mining shall mean mining by a Keystone or other recognized drill used for practical mining, and shall be subject to the approval of the Mining Engineer.

HYDRAULICING, DREDGING AND STEAM-SHOVELLING

50¢ per cubic yard.

UNPROVIDED CASES

Other minerlike work, for which special provision is not made shall be allowed at the actual cost, but for ordinary labor \$6.50 per day per man employed shall be allowed.

All mining operations for the purpose of representing claims shall be done in a minerlike manner, and shall be subject to the approval of the Mining Engineer.

Approved:

ALEXANDER HENDERSON,
Commissioner.

E. C. SENKLER,
Acting Gold Comm.

April 16th, 1908.



Library and Archives
Canada

395 Wellington Street
Ottawa, ON K1A 0N4

Bibliothèque et Archives
Canada

395, rue Wellington
Ottawa, ON K1A 0N4

For material still subject to legislative, contractual or institutional obligations, users warrant that they will respect those obligations and not use LAC collections in a manner that would infringe the rights of others. Liability that may arise in the use of a copy is assumed in full by the user. LAC accepts no responsibility for unauthorized use of collection material by users.

To ensure proper citation and to facilitate relocation of an item, the source of the material and its reference number should always accompany the copy.

Pour les documents faisant encore l'objet d'obligations législatives, contractuelles ou institutionnelles, les usagers s'engagent à respecter ces obligations et à ne pas utiliser les documents des collections de BAC de façon à nuire aux droits d'autrui. Ils doivent assumer entièrement toute responsabilité qui pourrait découler de l'utilisation d'une reproduction de document. BAC décline toute responsabilité quant à l'utilisation non autorisée de documents provenant de ses collections.

Afin de citer un document avec exactitude et d'en faciliter le repérage, sa source et son numéro de référence doivent toujours accompagner la reproduction.

TITLE/TITRE _____
RG _____ MG ²⁸ R- _____ SERIES/SÉRIE ^{III-43} _____
ACCESSION _____ VOL ⁶⁷ PAGE(S) ³⁷ _____
BOX/BOÎTE _____ REEL/BOBINE _____
FILE/DOSSIER Yukon Gold Co. Letters, Reports, Map. 1910 _____
DATE JULY 2013 _____